A2D2
Newsletter

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VOLUME 1, NUMBER X5!
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Atari Association of Desert Dwellers
An official publication of the Tri-Cities Atari Computer Enthusiasts Users Group

xxxxxxxxxxxxxxxxxx EDITOR'S NOTES xxxxxxxxxxxxxxxx

WE'RE SORRY! WE'RE SORRY! WE'RE SORRY! WE'RE
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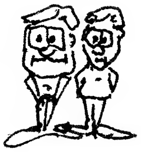
We'll print a Newsletter every month, and if we don't have a meeting, we'll tell you. Our Apologies.

--The Editors



Reprinted From A.C.A.O.C. Feb. 1983

FAST FORMATER PROGRAM
by Josh Pine, A.C.A.O.C.

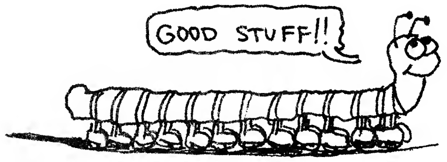
This program is a utility to format discs. It is extremely fast because one only has to press the START key to start it formatting. Just for your information, DOS takes six key strokes to format a disc. The heart of the program is the XIO command which would format a disc by itself. The POKE causes the writes to be done without verify. This speeds up the formatting process noticably. The rest of the program just makes things look nice.

```
5 POKE 1913,80
10 TRAP 70:GRAPHICS 18:? #6;"    DISK
FORMATER":? #6:? #6;:? #6;"   PRESS START
TO   FORMAT THE DISK IN"
20 ? #6;"    DRIVE #1."
30 IF PEEK(53279)<>6 THEN 30
40 POSITION 5,8:? #6;"FORMATING "
50 XIO 254,#1,0,0,"D"
60 POSITION 5,8:? #6;"          ":GOTO 30
70 POSITION 5,8:? #6;"ERROR #";PEEK(195);"
":TRAP 70:GOTO 30
```

Editorial note: Listed below are some more basically useful XIO's. They can be used in BASIC immediate mode, often precluding the need to invoke DOS and thereby not wiping out the program you are working on.

cmdno	**OPERATION**	**EXAMPLE**
3	OPEN	Same as BASIC OPEN
5	GET RECORD	These 4 commands are similar to
7	GET CHARACTERS	BASIC INPUT GET, PRINT, and PUT
9	PUT RECORD	
11	PUT CHARACTERS	respectively.
12	CLOSE	Same as BASIC CLOSE
13	STATUS REQUEST	Same as BASIC STATUS
17	DRAW LINE	Same as BASIC DRAWTO
18	FILL	See Section 9
32	RENAME	XIO 32,#1,0,0,"D:TEMP.CAROL"
33	DELETE	XIO 33,#1,0,0,"D:TEMP.BAS"
35	LOCK FILE	XIO 35,#1,0,0,"D:TEMP.BAS"
36	UNLOCK FILE	XIO 36,#1,0,0,"D:TEMP.BAS"
37	POINT	Same as BASIC POINT
38	NOTE	Same as BASIC NOTE
254	FORMAT	XIO 254,#1,0,0,"D2:"

aexp	Device number (same as in OPEN). Most of the time it is ignored, but must be preceded by #.
aexp1 **aexp2**	Two auxiliary control bytes. Their usage depends on the particular device and command. In most cases, they are unused and are set to 0.
filespec	String expression that specifies the device. Must be enclosed in quotation marks. Although some commands, like Fill (Section 9), do not look at the filespec, it must still be included in the statement.



xxxxxxxxxxxxxxxxx SECRETARY'S NOTES xxxxxxxxxxxxxxx

The last meeting was held on June 16, 1983, and was called to order at 7:34 P.M. Twenty-five people attended, out of a total of 73 members. We have about $770 in the bank. It was a warm night, with lows in the 70's and highs in the 80's. Chance of rain was less than 10%.

The Editors once again made a plea for help. Yawns and general muttering circulated the room. They'd heard it all before.

Two new disks were added to the library, bringing the total number of disks to 13,435. The library is available for use to anyone who can lift it.

A new meeting place for the summer months was discussed but not resolved. Many attempts were subsequently made to locate a suitable meeting area, but to no avail. When a new meeting place was found, it was supposed to be printed in the next Newsletter. This is the next Newsletter! We're meeting at the school again!

It was announced that Take-A-Byte was no longer stocking Atari items, and the reasons were made public, but not clear. Larry Williams bought all the existing stock from Take-A-Byte, and is selling it at discount rates!!! This, however, is not a plug.

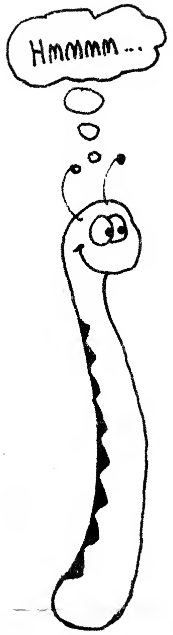
Larry Williams prepared a slide show for the group, but the slides didn't get back in time. So, he talked about the new Atari products and drew pictures on the blackboard. The dancing girls didn't show up, either.

One of the members gave an interesting and informative talk on Serial and Parallel ports, and the advantages and disadvantages of each. I learned something new, and so did everyone at the meeting. So, come to this meeting and you won't miss all the interesting stuff that goes on, okay!!???

--Bud

xxxxxxxxxxxxx LOGO CONTEST CONTINUES! xxxxxxxxxxxxx

The longest, strangest contest ever continues on its merry way!! Here's what you do. Create a Logo. Put it on a piece of paper, and make it no larger than 3" tall (that way we can print them!) Make sure you use a ballpoint or felt tip pen, so it's dark enough. Mail it to us, give it to us at the meeting, or drop it in the envelope at Kennewick Computer. It's that simple!!! Hurry!!! This contest must end by January 1, 1994!



xxxxxxxxxxxxxxxxxxxxx LETTERS xxxxxxxxxxxxxxxxxxxxx

EDITORS:

My Atari Computer has taken to wandering about the house and insulting the neighbors. I think it's a bad chip. My wife says it has become rude and should be disciplined. I like my Atari, but I can't take this abusive behavior much longer. What should I do?

--Konfused in Kennewick

DEAR CONFUSED:

Don't fret! Call the Atari Hot-Line, at 1-800-538-8543. Several of the older Atari's had a bug in their politeness chip, and have become abusive and cranky with age. Just be patient.

EDITORS:

I have heard that Atari computers are good at playing games. Yet, everytime I try to engage it in a game of Monopoly, Scrabble, or even Crazy Eights, it just sits there and stares at me, with the word "READY" in the upper left hand corner. I have left it on for as long as 8 hours, and nothing happens. What am I doing wrong?

--Puzzled in Pasco

DEAR PUZZLED:

All Atari Computers play games. Keep trying.

Get the idea? WE'RE BORED!! We need letters!! Send 'em to us and we'll print 'em! 'Nuff said.

Frankly, I've never had any problem with Hexadecimal!

Reprinted From MEMO PAD March 1983

Reprinted From M.A.C.E. Jan. 1983

WATERFALL

by David Fox & Mitchell Waite

Here's a very nice GTIA demo downloaded from GREKELCOM, the Oklahoma City ARMUDIC Bulletin Board (405)-722-5056. Thanks to SYSOP Greg Leslie. If you like the program, I suggest you pick up the November '82 issue of BYTE magazine and read the excellent article on computer animation that accompanied it.

```
10 REM *** FALL WATERFALL ***
20 REM
30 REM
40 REM DEMONSTRATION OF ANIMATING A SCENE BY ROTATING THE
COLOR REGISTERS
50 REM (USES GRAPHICS 10 - GTIA IS NEEDED)
60 REM COPYRIGHT (C) 1982 BY DAVID FOX AND MITCHELL WAITE
62 REM
63 REM
65 REM FROM NOV.'82 "BYTE" MAGAZINE
66 REM SUBMITTED BY MIKE RAY, OKC
67 REM
70 REM
80 GOTO 200
100 REM ROTATE COLORS
110 TEMP=PEEK(705):POKE 705,PEEK(706):POKE
706,PEEK(707):POKE 707,PEEK(708):POKE 708,TEMP
120 FOR WT=1 TO 5:NEXT WT
130 GOTO 110
150 POKE 706,PEEK(707)
160 POKE 706,PEEK(707)
200 REM DATA FOR LOCATION OF TREES
210 FILL=1300
220 GRAPHICS 10
230 POKE 704,9*16+10:REM SKY,COLOR 0
240 POKE 705,8*16+10:REM WATER,COLOR 1
250 POKE 706,8*16+8:REM WATER,COLOR 2
260 POKE 707,8*16+6:REM WATER,COLOR 3
270 SETCOLOR 0,8,4:REM WATER,COLOR 4
280 SETCOLOR 1,12,4:REM TREE SHADOW,COLORS
290 SETCOLOR 2,2,4:REM CLIFF & TREE TRUNKS,COLOR 6
300 SETCOLOR 3,12,6:REM GRASS,COLOR 7
310 SETCOLOR 4,3,6:REM TREETOPS,COLOR 8
400 REM DRAW GRASS & CLIFF
410 COLOR 7:POKE 765,7:REM THE GRASS
420 PLOT 79,10:DRAWTO 79,45:X1=78:Y1=10:X2=66:Y2=15:GOSUB
FILL
430 X1=65:Y1=15:X2=61:Y2=18:GOSUB FILL:
X1=60:Y1=18:X2=56:Y2=25:GOSUB FILL
440 X1=56:Y1=25:X2=65:Y2=35:GOSUB FILL:
X1=66:Y1=35:X2=78:Y2=45:GOSUB FILL
450 COLOR 6:POKE 765,6:REM THE CLIFF
460 PLOT 79,46:DRAWTO
79,145:X1=56:Y1=26:X2=56:Y2=117:GOSUB FILL
470 Y1=117:X2=68:Y2=132:GOSUB FILL:
X1=68:Y1=132:X2=78:Y2=145:GOSUB FILL
480 COLOR 7:POKE 765,7:REM MORE GRASS
490 PLOT 0,191:DRAWTO 79,191:DRAWTO
79,146:X1=0:Y1=191:X2=0:Y2=91:GOSUB FILL
500 REM DRAW THE FALLS AND RIVER
510 FALL=58:CFLAG=0:REM DRAW THE RIVER ON TOP OF THE CLIFF
520 FOR Y=25 TO 34
530 GOSUB 1500
540 FOR X=79 TO FALL STEP -1
550 COLOR COL
560 PLOT X,Y
570 COL=COL-1:IF COL=0 THEN COL=4
580 NEXT X
590 FALL=FALL+1
600 NEXT Y
610 FALL=0:CFLAG=-1:REM DRAW THE FALLS
620 FOR X=58 TO 66
630 FALL=FALL+1
640 GOSUB 1500
650 PLOT X,25+FALL
660 FOR Y=30 TO 120 STEP 4
670 COLOR COL
680 DRAWTO X,Y+FALL
690 COL=COL-1:IF COL=0 THEN COL=4
700 NEXT Y:NEXT X
710 COLOR 6:PLOT 58,28:DRAWTO 58,25:DRAWTO 59,25:PLOT
66,38:DRAWTO 66,129:REM CLEANUP
720 COLOR 7:PLOT 73,33:DRAWTO 79,33:PLOT 68,34:DRAWTO
79,34
730 FALL=57:CFLAG=1:REM DRAW THE RIVER ON THE VALLEY FLOOR
740 FOR Y=121 TO 128
750 GOSUB 1500
760 FOR X=FALL TO 0 STEP -1
770 COLOR COL
780 PLOT X,Y
790 COL=COL-1:IF COL=0 THEN COL=4
800 NEXT X
810 FALL=FALL+1
820 NEXT Y
900 REM DRAW THE TREES
910 FOR T=1 TO 11
920 READ X,Y
930 COLOR 8:REM TREETOP
940 FOR I=0 TO 2:PLOT X-I,Y-40+2*I:DRAWTO
X-I,Y-20-2*I:NEXT I
950 FOR I=-2 TO -1:PLOT X-I,Y-40-2*I:DRAWTO
X-I,Y-20+2*I:NEXT I
960 COLOR 6:REM TREE TRUNK
970 PLOT X,Y:DRAWTO X,Y-21
980 COLOR 5:REM SHADOW OF TREE
990 PLOT X,Y+1:DRAWTO X+7,Y+4:PLOT X+8,Y+3:DRAWTO
X+8,Y-5:DRAWTO X+9,Y+6
1000 DRAWTO X+9,Y+3:DRAWTO X+10,Y+3:DRAWTO X+10,Y+7
1010 PLOT X+11,Y+7:DRAWTO X+11,Y+4:DRAWTO X+12,Y+5:DRAWTO
X+12,Y+7
1020 COLOR 8:REM FALLEN LEAVES AROUND TREE
1030 FOR I=1 TO 15
1040 RX=X+INT(RND(1)*7)-3:IF RX=X THEN 1040
1050 RY=Y+INT(RND(1)*8)-3:PLOT RX,RY
```

```
1060 NEXT I
1070 NEXT T
1100 REM DRAW THE FOAM
1110 COLOR 0:REM SKY COLOR
1120 PLOT 57,114:DRAWTO 65,122
1130 PLOT 57,115:DRAWTO 65,123
1140 PLOT 57,116:DRAWTO 65,124
1150 PLOT 56,116:DRAWTO 65,125
1160 PLOT 56,117:DRAWTO 65,126
1170 PLOT 56,118:DRAWTO 65,127
1180 PLOT 56,119:DRAWTO 65,128
1190 PLOT 55,119:DRAWTO 64,128
1200 PLOT 55,120:DRAWTO 63,128
1250 REM TURN ON THE SOUND
1260 FOR I=0 TO 3:SOUND I,I*50,0,8:NEXT I
1270 GOTO 100
1300 REM FILL ROUTINE
1320 PLOT X1,Y1:POSITION X2,Y2:XIO 18,#6,0,0,"S:":RETURN
1500 REM CHOOSE COLOR
1510 COL=INT(RND(1)*4)+1:IF COL=STARTCOL THEN 1510:REM NO
2 ADJACENT COLOR STRIPS WITH THE SAME COLOR PATTERN
1520 STARTCOL=COL+CFLAG:REM CALCULATE NEXT STARTING COLOR
TO AVOID
1530 IF STARTCOL=0 THEN STARTCOL=4
1540 IF STARTCOL=5 THEN STARTCOL=1
1550 RETURN
2000 REM DATA FOR LOCATION OF TREES
2010 DATA 7,106,13,96,30,100,40,112,47,145,7,179,
15,155,27,164,35,173,60,181,66,174
```

Reprinted From M.A.C.E. Jan. 1983

PRE-BASIC

By RICHARD GIZYNSKI

In my last article, I described how memory was held in individually read areas or addresses. Each address holds eight bits that form a byte (a character of information). There are 256 possible combinations that can be held by each byte. Now lets see how these characters can be used.

The heart of your Atari is a little silicon chip called a 6502. Another name for this chip is CPU or Central Processing Unit. The CPU, like a handyman for hire, looks for an instruction and then follows it. When it is done with the first instruction it looks for the next.

Each time you turn your Atari on, the CPU first goes to the permanent, Read Only Memory (ROM) section of memory called the Operating System. The operating system contains the instructions on how to handle the screen, get information from the keyboard, check to see what devices are attached, and all the housekeeping chores that the CPU has to perform to allow you to interact with your Atari.

Each instruction must be given to the CPU in a very simple, one step at a time form, like you might give a blindfolded man to guide him through a maze. The CPU has no way of sensing the difference between an instruction byte and a data byte so the first location in memory must be an instruction. That instruction must tell the CPU what to do first and then be followed by another instrution. Or, the first instruction must tell the CPU where to go in memory to get the next instruction. The programer must be careful not to direct the CPU to a byte of data (a number, letter of a word etc.) when the CPU should be looking for an instruction. The CPU would take the data byte and treat it as an instruction and faithfully try to execute it. This level of instructions, the level the CPU works at, is called machine language.

Writing machine language instructions can be a very tedious and frustrating task. Programers developed a language that was more human oriented, called assembler, to help them. Assembler languages act like a interpreter. A programmer can write in characters and numbers and the assembler translates this to the binary bytes that the CPU must have. To a beginning programer, assembler is very confusing but much better than looking at columns of 0's and 1's.

BASIC is one of the high level languages. In Assembler, you write each detailed step the CPU needs but use letters and characters that are easier for you to understand. In higher level languages you may use a one or two word command. The language translates this command into the many small steps the CPU needs to act on the command.

In your Atari, the Basic Cartridge contains a program. It is the program in the Basic cartridge that is running. The program that you entered through the keyboard, cassette or disk is really data that the cartridge program will use to do what you want done. The fact that the program that you enter is data for the program in a cartridge is one of the most misunderstood (or completely unknown) concepts to a beginning programer.

When you type in a Basic program, the program in the cartridge SAVEs the program you enter in shorthand form. This process is called tokenization. One token, one command. When you LIST a program to screen, printer, cassette or disk, the program in the cartridge looks at the series of tokens and re-translates them back to English. This is an important concept for you to understand. It will make understanding Basic and your Atari easier. The program that you enter is data for the program cartridge.

CONSTITUTION

ARTICLE I-Preamble

Section 1. The User Group name is TRI-CITY ATARI COMPUTER ENTHUSIASTS (TRACE), also known as A2-D2.

Section 2. The purpose of this User Group is to promote and share the common interest in computer hardware, software, programming, and operations.

Section 3. The Board of Directors will consist of elected officers as follows: (1) President, (2) Vice-President, (3) Secretary, (4) Treasurer, (5) Librarian, (6) Program Chairperson, and (7) Newsletter Editor. General management of the User Group affairs will be entrusted to the Board of Directors.

Section 4. Membership is available to any person who subscribes to the purpose of this User Group.

Section 5. The User Group will not operate for profit and no part of any proceeds or residue from dues, advertisement, or donations to the User Group will be used to the benefit of any member or individual.

Section 6. The members of the User Group will from time to time revise the Bylaws as may be required to carry out the purpose of the User Group.

Section 7. Business will be conducted in accordance with the Bylaws of this Constitution. The Bylaws govern membership, monthly and annual meetings, officer responsibility, and other User Group activities.

BYLAWS

ARTICLE I-Membership

Section 1. Each applicant for membership is required to complete an application form provided by the User Group, and agrees to abide by the Constitution and Bylaws. Upon payment of dues, the applicant becomes a member in good standing and receives a subscription to the A2-D2 Newsletter, has accesss to the User Group library, and has one vote in any carried motion, election, or other ballot proposals.

Section 2. Termination of Membership:

(a) by resignation. Any member may resign from the User Group upon written notice to the Secretary, but no portion of the dues will be refunded.

(b) by lapsing. Any member will be automatically suspended from membership if dues are not paid 60 days after the first day of the fiscal year.

(c) by copyright infringement. Any member convicted of knowingly selling or reproducing copyrighted material for other than personal back-up use will be expelled from membership in the User Group. Expulsion of a member is automatic at the time final legal conviction is made.

ARTICLE II-Meetings and Voting

Section 1. User Group meetings will be held in a centeral location, on a regular monthly basis, and at a time and location designated by the Board.

Section 2. Special meetings may be called by the President or a majority of the Board Members. Written notice of the time, date, location, and subject matter of the meeting will be mailed to the membership at least 5 days and not more than 15 days prior to the special meeting. Only business related to the stated subject matter can be transacted at this meeting.

Section 3. Meetings of the Board of Directors will be held on a regular monthly basis and prior to the User Group meeting. A quorum for this meeting will be two-thirds of the Board members. The purpose of this meeting is to discuss business related activities in preparation for the User Group meeting. The time and location will be determined by the President.

Section 4. Special meetings of the Board may be called by the President or a majority of the Board members. Notice of the time, location, date, and purpose will be identified in advance. A quorum will be two-thirds of the Board members.

Section 5. Each member in good standing whose dues are paid for the current fiscal year will be entitled to one vote. Family membership constitutes one vote. No proxy voting will be permitted.

ARTICLE III-Directors/Officers

Section 1. The Board of Directors will be elected for a one year term of office as defined in Article VII.

Section 2. Officers.

(a) PRESIDENT-The President will preside at all meetings of the User Group and the Board and will have the power and duties appurtenant to the office of President in addition to those specified in the Bylaws.

(b) VICE-PRESIDENT-The Vice President will have the duties and exercise the power of the President in his absence. In addition, the Vice President is responsible for special assignments such as (1) review and update of the Bylaws, (2) coordinate fund raising events, (3) presides at committee meetings as directed by the President, and (4) coordinate training programs supported by the User Group.

(c) SECRETARY-The Secretary will keep a record of all meetings of the User Group and Board, and of all matters for which a record has been ordered by the Board, and submit a summary of the meeting minutes to the Newsletter Editor. The Secretary will have responsibility for correspondence and carry out other duties as prescribed by these Bylaws.

(d) TREASURER-The Treasurer will collect and/or receive all monies due or belonging to the User Group. The Treasurer will deposit the same in a bank designated by the Board in the User Group's name. Bank statements will be mailed directly to the Treasurer. The accounting books will at all times be open to the inspection of the Board. The Treasurer will report the financial status of the treasury at all meetings. At the annual meeting, the Treasurer will render an account of all monies received and expended during the fiscal year. Each January, three members, including at least one Board member, will audit the treasury accounting books and present their findings at the following Board meeting. The Treasurer is responsible for disbursement of funds to pay debts. The Treasurer is also responsible for maintaining a current membership roster and to provide a copy of this roster to all Board members on request.

(e) LIBRARIAN-The librarian will maintain for the User Group all disks, magazines, books or other items of interest to the membership in such a manner as to make them available to the members. The Librarian will maintain a catalog of all material in the library for copy and at least twice a year this catalog is to be updated, reviewed by the Board, and made availble to the membership.

(f) PROGRAM CHAIRPERSON-This person is responsible for coordinating program topics and demonstrations for the monthly User Group meetings, and notifying the Editor for publication of the planned program.

(g) NEWSLETTER EDITOR-The Editor is responsible for preparing, printing, and mailing the A2-D2 Newsletter. Mailing will be no later than three days prior to the User Group monthly meeting. All members are encouraged to submit articles of interest in the Newsletter, subject to the review and approval of the Editor. All articles for publication must be received by the Editor at least 10 days prior to the monthly meeting for that months edition. All monies for advertising in the Newsletter are to be collected by the Editor and given to the Treasurer. The Editor may work alone or in committee as approved by the President.

Section 3. Any vacancies occurring during the year on the Board will be filled for the unexpired term by a majority vote of the existing Board members. The vacancy will be filled as soon as practical.

CONT. ON NEXT PAGE...

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ARTICLE IV-Dues/Treasury

Section 1. Membership dues are $12.00 per year, payable on or before the first (1st) day of January of each year. Dues will be prorated by month for new applicants (only) who obtain membership other than the month of January. Any member whose dues have lapsed (Article I, Section 2) will be denied all privileges for members in good standing. Family membership is considered as a single membership and dues apply accordingly.

Section 2. The purpose of dues is to provide funds for operating the User Group. These funds may be used to (a) print and mail the A2-D2 Newsletter, (b) rental of property for conducting meetings and seminars, and (c) acquisitions made by the library.

Section 3. Only officers are authorized to make expenditures or commit funds from the treasury. Special expenditures, other than those listed above, have the following limitation/authorization schedule: (a) $25 and less/President, (b) less than $100 but greater than $25/Board of Directors, and (c) greater than $100/Membership by vote.

ARTICLE V-Library

Section 1. The library will be available for members to copy programs that are public domain and to borrow programs, magazines, books, and other printed material on a first-come first-served basis. Members will provide their own disk/cassette for copy at the User Group meeting or as arranged with the Librarian.

Section 2. Non-members are not permitted access to the library.

ARTICLE VI-Newsletter (A2-D2)

Section 1. The purpose of the Newsletter is to provide information which would be of common interest to the User Group membership. This may include the editors's column, meeting minutes, meeting announcements, programs, program reviews, contest announcements, advertising, etc.

Section 2. The Newsletter is available to the membership for advertisements (for sale or wanted). There is no charge for this service provided the advertisement is (a) computer related, (b) from an individual (i.e. non-commericial), and (c) approved by the Editor. Commericial advertising rates will be set by the board and published in the Newsletter. Monies collected from commercial advertising will be placed in the Treasury to defray the cost of publishing the Newsletter.

ARTICLE VII-Annual Meeting

Section 1. The User Group fiscal year will be identical with the calendar year.

Section 2. The annual meeting will be in December at which time nominated candidates for office elections will be made. For each position, the nominated candidate receiving the most votes will be declared elected. Any member whose principal business is the sale of computers and/or related equipment is not eligible for the elected positions of President, Treasurer, or Editor.

Section 3. During the month of October, the Board will select a nominating committee of at least three members not more than one of whom will be a member of the Board. The Board will name a chairperson for this committee which will meet before November to:

(a) Nominate at least one person for each position on the Board. After securing the consent of the nominated candidates, their names will be reported to the Secretary.

(b) The candidates so nominated will be presented at the November main meeting and in the November Newsletter.

(c) Additional nominations may be made at the November meeting by any member in attendance, provided that the person nominated does not decline. No person can be elected for more than one position.

ARTICLE VIII-Committees

Section 1. The Board may each year appoint standing committees to advance the purpose of the User Group.

Section 2. Any committee may be terminated by a majority vote of the Board. The Board may appoint successors to those person(s) whose services have terminated.

ARTICLE IX-Amendments

Section 1. Amendments to the Constitution and Bylaws may be proposed by the Board or by written petition addressed to the Secretary. The petition must be signed by at least 20 percent of the membership in good standing. Amendments proposed by petition will be promptly considered by the Board and must be submitted to all members in good standing for balloting within three months from the date when the petition was received by the Secretary.

Section 2. The Constitution and Bylaws may be amended by a two-thirds majority of the ballots returned to the Secretary within 35 days from the date the proposed amendment was submitted to the membership.

ARTICLE X-Order of Business

Section 1. The order of business for User Group meetings, so far as the nature and character of the meeting may permit, will be as follows: (a) Call to order, (b) Minutes of the last meeting, (c) Report of Officers, (d) Report of Committees, (e) Old Business, (f) New Business, (g) Planned Demonstration, (h) Adjournment.

Section 2. The order of business for Board meetings, unless otherwise determined by the majprity present, will be as follows: (a) Minutes of the last meeting, (b) Report of Officers, (c) Report of Committees, (d) Old Business, (e) New Business, (f) Adjournment.

Section 3. In the absence of any other set procedures, Robert's Rules of Order will be observed. Except as otherwise specified, a simple majority vote or ballot will carry.

ARTICLE XI-Dissolution

In the event of the dissolution of the User Group whether voluntary or involuntary by operation of law, none of the property of the User Group will be distributed to any member or members of the User Group. After payment of all debts, the User Group's property and assets will be given to an appropriate non-profit or charitable organization as determined by the Board.

xxxxxxxxxxxxxxxx NEXT MEETING xxxxxxxxxxxxxxxxxxxx

Summer's over and it's back to business! Ted from Kennewick Computer will be at the meeting to show off any and all new Atari products he may have received (which so far isn't a whole lot!) We'll also be approving the By-Laws (finally!), and become an *OFFICIAL* organization! Plus, bring your computer's for program swaps, demos, and general Computer Talk!!

xxxxxxxxxxxxxxx WHO TO BLAME! xxxxxxxxxxxxxxxxxxxx

OFFICE	PERSON	PHONE
PRESIDENT	Larry Williams	783-8554
V.PRESIDENT	Bryan Schroeder	375-0462
TREASURER	Randy Yeats	783-6291
SECRETARY	Rick Raymond	967-9330
LIBRARIAN	Bob Grant	783-9239
EDITORS	John Hickey	627-3315
	Dean Martin	783-9858

BASIC Subroutines for Filenames

by Phil Heavin

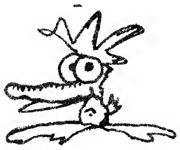
The device independence that is an integral part of the ATARI operating system is a very powerful and useful feature that BASIC programmers do not usually utilize to its fullest extent.

A user of a program that writes an ASCII type output file should have the flexability when he runs the program to direct its output to any device on his computer. This can be achieved very easily on the ATARI by simply prompting the user for a complete file string and using that string in the open statement.

The above approach has two drawbacks. The first is that all users must understand the file naming conventions to give even the simplest response. Second, it would be nice if the majority of the time the user could get what he wants by typing just a RETURN.

The following example program demonstrates the use of the subroutine GETFILE. Given the default file string, DEF$, it will prompt the user for his input, apply the default for each separate portion of the file specification and return the string FILE$ which can be used in the OPEN statement.

```
 100 REM ______________________________
110 REM | PROGRAM TO DEMONSTRATE     |
120 REM | PROMPTING FOR A FILE NAME |
130 REM | WITH DEFAULTS              |
140 REM ______________________________
200 DIM DEF$(16),FILE$(16),DEV$(3),
DFDEV$(3),NAME$(8),DFNAME$(8),EXT$(4),
DFEXT$(4),REST$(12)
210 LET GETFILE=20000
220 FSS=20500
250 REM ______________________________
260 REM | BODY OF PROGRAM GOES HERE |
270 REM ______________________________
300 DEF$="D:OUTFILE.DAT"
310 GOSUB GETFILE
320 PRINT "OPEN FILE ";FILE$
330 PRINT
340 GOTO 310
20000 REM ______________________________
20002 REM |GETFILE ROUTINE            |
20004 REM | PROMPT USER FOR FILENAME|
20010 REM | WITH DEFAULT AND APPLY    |
20020 REM | THEM TO THE RESPONSE      |
20021 REM |                           |
20022 REM |INPUT:                     |
20023 REM | DEF$ - DEFAULT FILE       |
20024 REM |         STRING            |
20025 REM |                           |
20026 REM |OUTPUT:                    |
20027 REM | FILE$ - RESULT FILE       |
20028 REM | DEV$  - RESULT DEVICE     |
20029 REM | NAME$ - RESULT NAME       |
20030 REM | EXT$  - RESULT EXTENTION|
20031 REM ______________________________
```



```
20035 FILE$=DEF$
20040 GOSUB FSS
20050 DFDEV$=DEV$:DFNAME$=NAME$:
DFEXT$=EXT$
20060 PRINT "(";DEF$;")";
20070 INPUT FILE$
20080 GOSUB FSS
20090 IF DEV$="" THEN DEV$=DFDEV$
20100 IF NAME$="" THEN NAME$=DFNAME$
20110 IF EXT$="" THEN EXT$=DFEXT$
20120 FILE$=DEV$
20130 FILE$(LEN(FILE$)+1)=NAME$
20140 FILE$(LEN(FILE$)+1)=EXT$
20150 RETURN
20500 REM ______________________________
20510 REM | FSS - FILE STRING SCAN |
20511 REM |                         |
20512 REM |INPUT:                   |
20513 REM | FILE$ - FILE STRING     |
20514 REM |                         |
20515 REM |OUTPUT:                  |
20516 REM | DEV$  - DEVICE          |
20517 REM | NAME$ - FILE NAME       |
20518 REM | EXT$  - FILE EXTENTION |
20520 REM ______________________________
20530 DEV$=""
20540 NAME$=""
20550 EXT$=""
20555 REST$=FILE$
20560 IC=1:LC=LEN(FILE$)
20570 IF IC<=LC THEN IF FILE$(IC,IC)
<>":" THEN IC=IC+1:GOTO 20570
20580 IF IC<=LC THEN DEV$=FILE$(1,IC):
REST$="":IF IC<LC THEN REST$=FILE$(IC+1)
20585 FILE$=REST$
20590 IC=1:LC=LEN(FILE$)
20600 IF IC<=LC THEN IF FILE$(IC,IC)
<>"." THEN IC=IC+1:GOTO 20600
20610 IF IC>1 THEN NAME$=FILE$(1,IC-1)
20620 IF IC<=LC THEN EXT$=FILE$(IC)
20630 RETURN
```

Run this program and try several responses to the prompt. As you will see, typing RETURN would cause the output to be written to "D:OUTFILE.DAT".

If, however, this were just a test run and you respond E: the resultant file string is E:OUTFILE.DAT which means the output would be displayed on the screen.

For printed output you would respond with P:. If you wanted the output to a different file name on disk you would just type the name, for example, MYFILE. The output file will be D:MYFILE.DAT.

If the filename is ok but you are lucky enough to have another disk you can direct the output there by typing D2: causing the file string to be D2:OUTFILE.DAT.

The examples could be continued but rather, try different responses to the sample program. Then use the subroutines in your programs. It will make them more usable for you and those who use your program.

Reprinted From M.A.C.E. Jan. 1983

BURP!
(Basic Unusable-disc Reclaimer Program)

Exerped from **ANALOG** issue 9, 1982

This is one of the best utility programs that I have ever seen. It modifies DOS to allow it to FORMAT discs with bad sectors as long as the bad sectors are not 1-4 or 360-368, the boot and directory areas. It writes a locked file named Bad Sect.ors which contains all of the bad sectors. (One of my discs had 68 bad sectors.)

For a more complete description, consult **ANALOG** magazine. It contains a complete assembly listing of the program. I have taken the liberty to modify the original listing to include a check sum routine for all of us fumble fingered typists - just type it in and RUN it. It writes an AUTORUN.SYS file that boots in with DOS and modifies it accordingly to perform it's magic. ed.

```
0 REM SAVE"D:BURPWCHK
10 REM BASIC UNUSEABLE-DISK
20 REM RECLAIMER PROGRAM
30 DIM DD(186)
40 FOR I=1 TO 186 STEP 8:CHK=0
50 IF I+8>186 THEN FOR J=1 TO 187-I:GOTO 70
60 FOR J=1 TO 8
70 READ D:CHK=CHK+D:DD(I+J-1)=D:NEXT J
80 READ D:IF CHK=D THEN NEXT I:GOTO 120
90 ? CHR$(125):? :? "CHECK SUM ERROR AT LINE ";
100 ? PEEK(184)*256+PEEK(183)
110 LIST PEEK(184)*256+PEEK(183):END
120 OPEN #1,8,0,"D:AUTORUN.SYS"
130 FOR I=1 TO 186
140 PUT #1,DD(I):NEXT I
150 CLOSE #1:END
200 DATA 255,255,140,7,141,7,169,0,974
210 DATA 76,13,78,13,76,82,13,142,493
220 DATA 13,144,13,32,0,6,165,13,386
230 DATA 169,13,208,248,32,101,6,0,777
240 DATA 6,144,6,169,0,141,148,6,620
250 DATA 141,147,6,172,147,6,177,71,867
260 DATA 141,145,6,200,177,71,141,146,1027
270 DATA 6,200,201,255,208,8,205,145,1228
280 DATA 6,208,3,76,149,16,140,147,745
290 DATA 6,169,0,160,3,78,146,6,568
300 DATA 110,145,6,106,136,208,246,42,999
310 DATA 42,42,42,168,169,0,56,106,625
320 DATA 136,16,252,170,173,145,6,105,1003
330 DATA 10,168,138,49,69,208,5,104,751
340 DATA 104,76,181,18,138,81,69,145,812
350 DATA 69,160,3,177,69,56,233,1,768
360 DATA 145,69,238,148,6,76,8,6,696
370 DATA 172,148,6,240,21,162,10,189,948
380 DATA 134,6,9,128,157,6,20,202,662
390 DATA 16,245,169,96,141,1,20,140,828
400 DATA 2,20,32,113,16,76,25,18,302
410 DATA 96,66,97,100,32,83,101,99,674
420 DATA 116,111,114,115,224,2,225,2,909
430 DATA 133,6,139
```

A.C.A.O.C.

LOOK AT THIS!

xxxxxxxxxxxxxxxx NEXT NEWSLETTER xxxxxxxxxxxxxxxxxxx

- * GAME REVIEWS?
- * KIDS CORNER...by Eric Hobbs
- * LETTERS?!..
- * UPCOMING EVENTS...
- * MORE PROGRAMS...
- * FUN DRAWINGS...
- * CONTESTS...
- * AND MORE!!!

xxxxxxxxxxxxxxxxxxx DETAILS xxxxxxxxxxxxxxxxxxxxxxxx

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Submit material for publication to the editors at the meetings, mail it to the below address, or drop them off in the envelopes provided at Kennewick Computer or Take-A-Byte. The deadline for material is the first Thursday of the month.

Meetings are held the third Thursday of every month, at 7:00 in the Multi-Purpose room at Kennewick High School (see map somewhere in this Newsletter). The next meeting is September 15. Members are encouraged to bring their computers and programs.

Advertising rates for the Newsletter are:

Full Page : $32
Half Page : $18
Quarter Page : $10
Business Card: $ 8

Payment must accompany copy.
Make payment to T.R.A.C.E.

Ad copy should be camera ready and received by the A2D2 Editors no later than the second Thursday of the month for that month's Newsletter.

The Editors are not responsible for any typos or errors in programs or advertisements. When an error is discovered (horrors!) a substantial effort will be made to correct it in the next Newsletter. The proofreader will then be flogged, drawn and quartered, and submitted to the Chinese Water Torture.

xxxxxxxxxxxxxxxxxxxxx AND SO... xxxxxxxxxxxxxxxxxxxx

That about wraps it up for our fifth newsletter. If you have any questions or comments, please feel free to write or call us. Until next time...

John & Dean

```
10 GOTO 10
```

--S. Oteric

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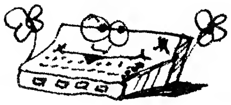

xxxxxxxxxxxxxxxxxxxx KID'S CORNER xxxxxxxxxxxxxxxxxx

This week I will talk about graphics modes and commands. First of all, the Atari has 12 graphics modes if you have a GTIA chip. If you have a CTIA chip you have only 9. When you turn on the computer it will automatically display a graphics mode 0. You can obtain any mode you want by simply typing GRAPHICS 8 if you wanted graphics mode 8. If you get tired of typing in GRAPHICS all the time just type in GR.8 and remember, the period after the GR is necessary to avoid an error. Any graphics mode below GR.3 will display text. Any higher than 3 will be a pixel plotting screen. For example try this...

```
10 GR.4:COLOR 1:REM SET UP GR MODE AND COLOR
20 PLOT 3,3:REM TELL COMPUTER WHERE TO PUT DOT
```

This program will plot a point 3 pixels over on top from the upper corner and 3 pixels down from the upper corner. The bigger the X coordinate, or first number, the farther over you will plot. The bigger the Y coordinate, or the second number, the farther down you will plot.
Remember:
The bigger the X, the farther to the right.
The smaller the X, the farther to the left.
The bigger the Y, the farther down.
The smaller the Y, the farther up.

--E.H.

xxxxxxxxxxxxxxxxxxxx SHORT BITS xxxxxxxxxxxxxxxxxxxx

```
10 REM SWARM OF FLIES
20 P=INT(RND(0)*6)+250
30 V=INT(RND(0)*4)+6
40 SO. 0,P,14,V
50 FOR X=1 TO 10:NEXT X
60 GOTO 10
```

```
10 REM RANDOM NOISE
20 P=INT(RND(0)*256)
30 V=INT(RND(0)*16)
40 SO. 0,P,10,V
50 GOTO 10
```

--Brad Grant

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INSIDE THIS ISSUE...

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- By-Laws
- Bits & Pieces
- Kid's Corner

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KENNEWICK HIGH SCHOOL